

REMARKS

I. Status of the Claims

Claims 14-26 are currently pending. No amendments are presented herein.

II. Finality of the Office Action

Applicants submit that this Office Action has been improperly designated as "Final." A second or any subsequent action on the merits shall be final, *except* where the examiner introduces a new ground of rejection that is neither necessitated by Applicants' amendment of the claims, nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p). *See* M.P.E.P. § 706.07(a). In the instant case, the Office alleges that "Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action." January 21, 2010, Final Office Action at 7. Applicants respectfully disagree.

Applicants note that the Office has issued a completely new rejection, based on new art, and simply states that "Applicant's amendment necessitated the new ground(s) of rejection." *See id.* There is no discussion by the Office of how or why the amendments necessitated the new rejections. The Office provides absolutely no substantive reasoning to support the issuance of a final rejection. As noted by M.P.E.P. § 706.07(a), the fact that Applicants amended the claim is simply not enough.

In the Amendment filed September 25, 2009, claim 1 was amended to further recite "wherein said method is operated in a manner to avoid expansion and cross-linking of said expandable and cross-linkable polymeric material prior to said

expanding and cross-linking steps c) and d).” In Applicants’ remarks of that paper, Applicants explicitly submitted to the Office that the amendment “makes explicit that which was already inherent to the claim, since the claim already required, for example, the step of ‘forming a coating layer made of expandable and cross-linkable polymeric material’ rather than a coating layer of expanded and/or crosslinked polymeric material.” September 25, 2009, Amendment at 5. The Office does not explain how or why this amendment created a new limitation that necessitated the new rejection. In fact, the new rejection is equally applicable to the claims prior to being amended.

Consequently, Applicants respectfully submit that the amendments did not in fact necessitate the new grounds of rejection and the finality of the present Office Action and request the withdrawal of the finality pursuant to M.P.E.P. § 706.07(d). If the Office rejects Applicants request to withdraw the finality of the present Office Action, Applicants reserve the right to petition for review of the finality by the Technology Center Director. See M.P.E.P. § 1002.02(c).

III. Withdrawn Rejections

Applicants acknowledge the withdrawal by the Office of the following rejections:

- the rejection of claims 14-19 and 21-26 under 35 U.S.C. § 103(a) as unpatentable over WO 99/33070 to Belli et al. in view of WO 01/38060 to Harlin et al.; and
- the rejection of claim 20 under 35 U.S.C. § 103(a) as unpatentable over WO 99/33070 to Belli et al. in view of WO 01/38060 to Harlin et al.

See January 21, 2010, Final Office Action at 6.

IV. Rejections under 35 U.S.C. § 103(a)

A. Claims 14 and 19-24

Claims 14 and 19-24 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over WO 99/63004 to Moriuchi et al. (U.S. Patent No. 6,436,557 being used as an English-language equivalent; "Moriuchi") in view of U.S. Patent No. 5,708,128 to Oikawa et al. ("Oikawa"). January 21, 2010, Final Office Action at 2-4. The Office essentially contends that Moriuchi teaches all elements of the rejected claims but "does not teach performing the heating step at atmospheric pressure. . . ." *Id.* at 2-3. To cure this deficiency, the Office states that Oikawa "teaches a process of cross-linking a polymer, and performs the heat treatment at atmospheric pressure." *Id.* at 3. The Office thus concludes that "[i]t would have been obvious to one skilled in the art at the time of the invention to have performed the expansion and cross-linking step taught by Moriuchi at atmospheric pressure because as mentioned above, atmospheric pressure is the cheapest and safest pressure in which process steps can be done." *Id.* at 3-4. Applicants respectfully disagree with the rejection and traverse.

In order to establish a *prima facie* case of obviousness, the Office must objectively perform each of the following factual inquiries:

- (A) Ascertain the scope and contents of the prior art;
- (B) Ascertain the differences between the claimed invention and the prior art; and
- (C) Resolve the level of ordinary skill in the pertinent art.

See Graham v. John Deere Co., 383 U.S. 1, 17-18; *see also* M.P.E.P. § 2141. Further, in order to support an obviousness rejection, there must be a reasonable expectation of success. M.P.E.P. § 2143.02.

In this case, Applicants respectfully submit that the Office has incorrectly ascertained the scope and content of the cited art and, consequently, the differences between the claimed invention and the cited art. Moreover, Applicants respectfully submit one of skill in the art at the time of the invention would not have had a reasonable expectation of success in performing the claimed invention.

First, neither Moriuchi nor Oikawa teach or suggest a cable with “at least one transmissive element; and an expanded and cross-linked coating layer. . . .” Claim 14 (from which claims 19-24 depend) is directed to “[a] method for producing a cable comprising . . . an expanded and cross-linked coating layer in a radially outer position with respect to said at least one transmissive element” The Office contends that “Moriuchi teaches a process of producing a cable comprising at least one transmissive element (see col. 1, lines 30-35) and an expanded and cross-linked coating layer in a radially outer position with respect to said at least one transmissive element” January 21, 2010, Final Office Action at 2. Applicants respectfully disagree.

Moriuchi teaches flame retardant resins that can be either applied as a layer, such as an insulating layer, to form an insulated wire or a flat cable or formed into an insulating tube, and optionally crosslinked. *See, e.g.,* Moriuchi at Abstract & col. 4, lines 24 and 36. In all instances where Moriuchi discusses expanding the insulation, including the passages to which the Office cites, Moriuchi specifically limits its discussion to insulating tubes; not the separate invention of an insulated wire. *See, e.g., id.* at col. 4, line 46; col. 11, line 28; and col. 23, line 14. The tubes of Moriuchi do not contain a transmissive element, as required by the cable of the instant claims. For example, Moriuchi describes testing the flame retardance of the insulating tube by

inserting an iron bar. *Id.* at col. 12, lines 55-58. A person skilled in the art would recognize that since Moriuchi was aware of the concept of expanding insulation, Moriuchi explicitly chose not to teach or suggest expanding the insulated wires.

Thus, Applicants respectfully submit that Moriuchi does not teach “a cable comprising at least one transmissive element (see col. 1, lines 30-35) and an expanded and cross-linked coating layer in a radially outer position with respect to said at least one transmissive element,” as alleged by the Office. Oikawa does not remedy this deficiency, nor does the Office allege that it does.

Second, neither Moriuchi nor Oikawa teach or suggest “expanding . . . by heating said coating layer . . . at atmospheric pressure by means of a heating fluid.” The Office argues that “expansion and cross-linking steps are taught by Moriuchi as being carried out . . . via heating (inherently by a heating fluid)” January 21, 2010, Final Office Action at 3. Acknowledging that “Moriuchi does not teach performing the heating step at atmospheric pressure. . . ,” the Office then states that Oikawa “teaches a process of cross-linking a polymer, and performs the heat treatment at atmospheric pressure (col. 33, lines 20-21).” *Id.* Based on Oikawa, the Office alleges that “[i]t would have been obvious . . . to have performed the expansion and cross-linking step taught by Moriuchi at atmospheric pressure because as mentioned above, atmospheric pressure is the cheapest and safest pressure in which process steps can be done.” *Id.* at 3-4. Applicants respectfully disagree.

Applicants note that Oikawa does not teach or suggest expansion at atmospheric pressure, nor does the Office allege that it does. Similarly, Moriuchi does not appear to teach expanding at atmospheric pressure. Rather, Moriuchi at col. 11, lines 24-30, and

col. 23, lines 14-19, expressly requires greater than atmospheric pressure when referring to expanding by "compressed air," which by definition is at a pressure greater than atmospheric. Accordingly, there is nothing in the combination of references that would lead one to find it obvious or even feasible "to have performed the expansion and cross-linking step taught by Moriuchi at atmospheric pressure," as the Office claims.

Finally, contrary to the Office's allegation, one of ordinary skill in the art would not have thought it obvious to carry out "expanding and cross-linking . . . at atmospheric pressure by means of a heating fluid" because high pressure was thought to be important for avoiding bubbles of gas that form during the expansion process that would interfere with the cross-linking process. *See, e.g.*, specification as-filed at 5, lines 15-21. Given that knowledge, one of skill in the art would not have a reasonable expectation of success in forming a suitable product in "expanding and cross-linking . . . at atmospheric pressure by means of a heating fluid," as claimed.

Accordingly, for at least these reasons, Applicants respectfully submit that the Office has failed to establish a *prima facie* case of obviousness and respectfully request withdrawal of the rejection.

B. Claims 15-18

Claims 15-18 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Moriuchi (citation above) in view of Oikawa (citation above), further in view of U.S. Patent No. 6,207,772 to Hatsuda et al. ("Hatsuda"). January 21, 2010, Final Office Action at 4-6. The Office appears to be relying on Moriuchi and Oikawa to teach all claim elements except that "Moriuchi is silent regarding the exact parameters of the

heat treatment to cross-link and expand the disclosed coating layer. . . .” See *id.* at 5. The Office contends that Hatsuda teaches all missing elements and thus concludes it would be obvious to combine the three references to arrive at the presently claimed invention because “heat treatment processes [as taught by Hatsuda] are well-known and widely recognized in the art.” *Id.* Applicants respectfully disagree with the rejection and traverse.

Claims 15-18 depend from claim 14. As discussed above, the Office’s analysis of Moriuchi and Oikawa regarding independent claim 14 is erroneous. Further, Hatsuda does not remedy these deficiencies, nor does the Office allege that it does.

Accordingly, because the Office has failed to establish a *prima facie* case of obviousness, Applicants respectfully request withdrawal of the rejection.

C. Claims 25 and 26

Claims 25 and 26 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Moriuchi (citation above) in view of Oikawa (citation above), further in view of WO 99/33070 to Belli et al. (“Belli”). January 21, 2010, Final Office Action at 6. The Office appears to be relying on Moriuchi and Oikawa to teach all claim elements except that “Moriuchi is silent regarding the metallic screen. . . .” See *id.* The Office contends that “Moriuchi does teach an outer sheath . . .” and that “Belli teaches having a metal shield around the coating layer (pg. 13, lines 27-35), and further coated with a protective outer sheath (pg. 14, lines 5-9).” *Id.* The Office concludes “[i]t would have been obvious to one skilled in the art at the time of the invention to have also placed a metal shield around the coating layer as taught by Belli, in the invention of Moriuchi,

because Belli teaches that this allows for recovery of any residual deformation of the expanded layer, as it presses against the inside of the metal shield (pg. 14, lines 1-5)."

Id. Applicants respectfully disagree with the rejection and traverse.

Claims 25 and 26 depend from claim 14. As discussed above, the Office's analysis of Moriuchi and Oikawa regarding independent claim 14 is erroneous. Further, Belli does not remedy these deficiencies, nor does the Office allege that it does.

Accordingly, because the Office has failed to establish a *prima facie* case of obviousness, Applicants respectfully request withdrawal of the rejection.

CONCLUSIONS

In view of the foregoing remarks, Applicants submit that this claimed invention is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the reconsideration of this application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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